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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,035	11/17/2003	Scott David D'Souza	3457-Z	1142

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Law Office of Jim Zegeer
Suite 108
801 North Pitt Street
Alexandria, VA 22314

EXAMINER

NOBAHAR, ABDULHAKIM

ART UNIT	PAPER NUMBER
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2132

MAIL DATE	DELIVERY MODE
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10/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/713,035

Applicant(s)

D'SOUZA ET AL.

Examiner

Abdulhakim Nobahar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 05/23/2005, 11/17/2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 5 and 6 recite different means as components of a system. The specification does not provide description for the means in these claims.

Claim Objections

Claims 1-6 are objected to because of the following informalities: These claims recite the word "internet". Examiner suggests that these claims be amended to recite "Internet".

Claim 1 is objected to because of the following informalities: Claim 1 recites, "comprising" and "SIP 180 (N₁₈₀)" in lines 4 and 6, respectively. Examiner suggests that this claim be amended to recite "comprising;" and "SIP 180 (N₁₈₀);".

Claim 3 is objected to because of the following informalities: Claim 3, in line 3 recites "including". Examiner suggests that this claim be amended to replace "including" by " further including".

Claim 5 is objected to because of the following informalities: This claim in line 2 recites "a internet". Examiner suggests that the claim be amended to recite "an Internet".

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Claim 6 is objected to because of the following informalities: This claim recites "and means providing indication..." Examiner suggests that the claim be amended to recite "and means for providing indication..."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 4 recites "the value of H, INV_0 , INV_c and N_{180} are reset..." This issue is not discussed or described in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites, "providing an indication of the presence of a current DoS on said proxy server". This limitation makes the claim indefinite because it does not specify that on what basis the indication is provided or how it is calculated.

Claims 1 and 6 recite "substantial imbalance", which makes the claims indefinite, because this limitation does not specify a certain value or quantity. Moreover, the "substantial imbalance" does not provide any specific relation between the "SIP INVITE" and the "SIP 180 (N₁₈₀)".

Claims 1 and 6 are also indefinite because the nature and value of "SIP INVITE", "SIP 180 (N₁₈₀)" and "SIP 180 Ringing" are not defined and clearly established. Further, the claims do not describe what they stand for.

Claim 2 is indefinite because INV₀ to, INV_c and N₁₈₀ are not defined in the claim that what they stand for.

Claim 2 is also indefinite because the limitation "a small margin of error" does not specify a certain value or quantity. Further, claim 2 is indefinite because it is not clear what type of information the "credentials" are.

Claim 5 is indefinite because it recites "for determining if the number of INVITE messages...", which is not a complete statement.

Claim 5 is indefinite because it recites "and providing an indication", which does not constitute a component of a system. This claim should be amended to recite "and means for providing an indication".

Claim 6 is indefinite because "providing indication of the presence of a current DoS on said proxy server" does not provide a basis such as a criteria, a value or a

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comparison function between two information for an indication of the presence of a DoS.

Claims 5 and 6 are indefinite because they recite different means for a system without any support provided in the specification.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 5 and 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4 and 10-12 of copending Application No. 10/849,830. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of this application are broader than the claims 1 and 10 of the copending application. For example, the claims of the instant application do not expressly specify that collecting statistics on incoming and outgoing call setup and termination signaling message types on a per user basis in a given time period. In general, the combined limitations of claims

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1, 2 and 4 and the combined limitations of claims 10-12 of the co-pending application correspond to the limitations of claims 1, 5 and 6 in the instant application. The co-pending claims 2 and 11 recite that a proxy server collects the statistics of messages and the co-pending claims 4 and 12 recite the use of a Session Initiation Protocol (SIP). These limitations correspond to "having at least one proxy server incorporating a Session Initiation Protocol (SIP)" in the claims 1, 5 and 6 of the instant application. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by March et al (2003/043740; hereinafter March).

Regarding claim 1, March discloses:

A method of detecting denial of service (DOS) attacks (see Fig. 7, paragraphs 0029 and 0097) in an internet accessible network having at least one proxy server (see paragraph

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0018 and 0020) incorporating a session initiation protocol (SIP) (see paragraph 0025), comprising detecting any substantial imbalance between an accounting of SIP INVITE (INV) and SIP 180 (N180) (see paragraphs 0005, 0029 and 0097) and providing an indication of the presence of a current DoS attack on said proxy server (see Fig. 7, block 616 and paragraphs 0029, 0101 and 0103) .

Regarding claim 2, March discloses:

The method of detecting denial of service attacks in an internet accessible network as defined in claim 1 wherein the number (H) of INVITE messages (see paragraphs 0005, 0038 and 0100) including credentials (INVc) that are sent from a user client in response to an authentication required (407) message from the proxy server (see Fig. 3, paragraphs 0066 through 0072 and 0085) are removed from the accounting before the balance is tested such that the equation:

$$INV_{to} + INV_c - H = N_{180}$$

is not true within a small margin of error (see paragraphs 0029, 0097, 0100 and 0101, where the rate of incoming messages, the traffic pattern and the threshold are the indication of a balance between the incoming messages and Ok outgoing messages) then the presence of a denial of service attack on the proxy server is indicated by the inequality (see paragraphs 0005 and 0103).

Regarding claim 3, March discloses:

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The method of detecting denial of service attacks in an internet accessible network as defined in claim 2 including causing said proxy server to maintain a call information table for determining the value of H (see paragraphs 0028 and 0036).

Regarding claim 4, March discloses:

The method of detecting denial of service attacks in an internet accessible network having at least one proxy server as defined in claim 2 wherein the values of H, INV_o, INV_c and N₁₈₀ are reset after denial of service attacks has been detected (see paragraph 0036, where deleting the entry in the table after a call session is terminated corresponds to the recited reset function).

Regarding claim 5, March discloses:

A system for detecting denial of service attacks against session initiation protocol elements in a internet accessible network having at least one proxy server, comprising means at said proxy server for determining if the number of INVITE messages including credentials (INV_c) sent to said proxy server from user clients (see paragraphs 0005, 0038 and 0100) in response to an authentication requirement (see Fig. 3, SIP 200 OK message 324 and ACK message 326) and providing an indication of a DoS attack when the number of INVITE messages exceeds a predetermined level (see paragraphs 0005 and 0103).

Regarding claim 6, March discloses:

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A system for detecting denial of service attacks in an internet accessible network having at least one proxy server (see paragraph 0018 and 0020) incorporating session initiation protocol (SIP) (see paragraph 0025), comprising said proxy server including means for detecting any substantial imbalance between an accounting of SIP INVITE (INV) and SIP 180 Ringing (see paragraphs 0005, 0029, 0065 and 0097) and means providing indication of the presence of a current denial of service attack on said proxy server (see paragraphs 0005 and 0103).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Application Pub. No. 2002/0129236 A1 to Nuutinen. Nuutinen discloses security modules for use in a voice over IP terminal device including session initiation protocol (SIP) signaling for telephony applications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdulhakim Nobahar whose telephone number is 571-272-3808. The examiner can normally be reached on M-T 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

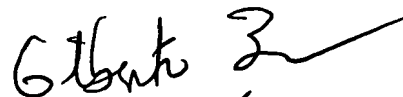
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 4, 2007

Abdulkhkim Nobahar
Examiner

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